

ABSTRACT

A multi-axis chuck that rotates about at least two axes. Preferably, the axes are perpendicular. The multi-axis chuck includes a first portion, second portion, and third portion. Rear sides of the first portion and the second portion have a first mating portion that
5 mates with a second mating portion provided on the second portion and the third portion, respectively. The mating portions enable the first portion and the second portion to be rotated about the axes. Preferably, the first portion rotates about a first axis independently of the second and third portions. Rotation of the second portion about a second axis preferably also rotates the first portion about the second axis. The multi-chuck is operatively connected
10 to a motor, controller, and sensors. A user inputs a desired position into the controller that controls the motor. The motor rotates the multi-axis chuck to the desired position. The sensors are used to determine a position of the multi-axis chuck. The controller determines whether the position determined matches the desired position.

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